CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

Job No.: CTCE/BBMP/W.No.14/KRIDL/CEMENT/2012-13

Date: 11.03.2013

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore
NAME OF THE WORK	:	Improvements to roads & drains at Manjunathanagara 1st Main, 2nd Cross in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/TDSD/PR/2012-13 Dated: 07.03.2013
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	169 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	494 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	29.50 %	-

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Job No.: CTCE/BBMP/W.No.14/KRIDL/SAND/2012-13 : 11.03.2013

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore

Agency : **Technical Manager (West),** KRIDL, Bangalore

Name of Work : Improvements to roads & drains at Manjunathanagara 1st Main, 2nd Cross in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2012-13 Dated: 07.03.2013

Date of Testing : 11.03.2013

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	75	3.75	3.75	96.3	90-100
2.36	124	6.20	9.95	90.1	75-100
1.18	384	19.20	29.15	70.9	55-90
600 Micron	573	28.65	57.80	42.2	35-59
300 Micron	496	24.80	82.60	17.4	8-30
150 Micron	218	10.90	93.50	6.5	0-10

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Job No.: CTCE/BBMP/W.No.14/KRIDL/AGG/2012-13 : 11.03.2013

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore

Agency : **Technical Manager (West),** KRIDL, Bangalore

Name of Work : Improvements to roads & drains at Manjunathanagara 1st Main, 2nd Cross in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2012-13 Dated: 07.03.2013

Date of Testing : 11.03.2013

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	912	3.65	3.65	96.35	95-100
20	16242	64.97	68.62	31.38	30-70
10	5034	20.14	88.75	11.25	10-35
4.75	2325	9.30	98.05	1.95	0-5

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Job No.: CTCE/BBMP/W.No.14/KRIDL/STEEL/2012-13 11.03.2013

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the work	:	Improvements to roads & drains at Manjunathanagara 1st Main, 2nd Cross in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/DZ/AEE/TDSD/PR/2012-13 Dated: 07.03.2013
Date of Test	:	11.03.2013
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	513	547	12.55	O.K	O.K
2	10	0.62	517	550	12.80	O.K	O.K
3	12	0.89	521	555	13.25	O.K	O.K

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Job No.: CTCE/BBMP/W.No.14/KRIDL/CUBE/2012-13 12.04.2013

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Improvements to roads & drains at Manjunathanagara 1st Main, 2nd Cross in Ward No. 14, T. Dasarahalli Sub Division, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/2012-13 Dated: 07.03.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	15.03.2013	12.04.2013	8.154	470.9	20.93
2	15.03.2013	12.04.2013	8.232	483.5	21.49
3	15.03.2013	12.04.2013	8.341	501.4	22.28

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TEST REPORT ON CONCRETE CUBES

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Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.03.2013	17.04.2013	8.076	501.3	22.28
2	20.03.2013	17.04.2013	8.126	487.2	21.65
3	20.03.2013	17.04.2013	8.213	526.5	23.40

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